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ON TWO FORMS OF AUTOMATIC MICRO- TOMES.

It is proposed to describe two microtomes, one of which has already been widely used; the other, on the contrary, has been put on the market very recently. The older instrument may be known as the 'automatic wheel microtome;' the new one has been named the 'precision microtome,' and is also planned to work automatically.

A microtome is an instrument of precision, which implies that it must be treated with extreme delicacy and kept most scrupulously clean. It will be found usually, when complaint is made against a microtome, that the complaint is misdirected and ought to be, not against the machine, but against the owner. A modern microtome necessarily has several adjustments, every one of which must be exact and secure. If any one of them is imperfect and insecure; if any of the movable parts are allowed to become corroded, or gummed up with oil, or loose, or clogged with dust or dirt of any kind, the microtome will not and can not work as an instrument of precision.

The knife used for cutting ought to be regarded as an integral part of the microtome, and as its most delicate and easily injured part. In accordance with this view, there has been added a description of a new form of knife, which offers certain substantial advantages.